

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

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# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	<b>10 NOVEMBER 2004 (10.11.2004)</b>
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Applicant's or agent's file reference FE241489	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/KR2004/001857</b>	International filing date (day/month/year) <b>23 JULY 2004 (23.07.2004)</b>	Priority date(day/month/year) 24 JULY 2003 (24.07.2003)
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International Patent Classification (IPC) or both national classification and IPC <b>IPC7 H04Q 7/30</b>
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Applicant

**UTStarcom Korea Limited et al**

**1. This opinion contains indications relating to the following items:**


- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

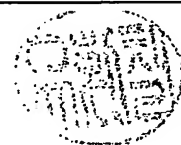
**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.  
For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  YOU, Hwan Cheol  Telephone No. 82-42-481-5743
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/001857

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/KR2004/001857

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	1-3	YES
	Claims		NO
Inventive step (IS)	Claims	1-3	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims		NO

**2. Citations and explanations :**

Reference is made to the following documents

D1: KR 1999-0000336 A

D2: KR 2002-0044729 A

D3: KR 2003-0028223 A

D4: US 6122527 A

The claim 1 of the present invention discloses a method of designing a micro-Base Transceiver Subsystem(BTS) of a CDMA system, including at least one channel card, intermediate frequency(IF) board, BTS control board, a digital combiner in a forward path of the BTS, a switching logic in a reverse path of the BTS, and a main board, said method comprising the step of embedding the digital combiner and the switching logic in the main board, wherein said main board acts as a backplane

D1 and D2 are the closest documents related with the present invention among the documents D1-D4.

D1 relates to a control board for a cordless base station using PLD(Program Logic Device) is provided to perform an improvement of a board function easily by managing each board separately through packaging a main board, a PLD board, and a cordless board at a mother board.

D2 relates to an interworking apparatus and method between a channel card and an IF board in a base station is provided to improve economic efficiency by embodying the interworking from a plurality of channel cards to the IF board

Neither D1 nor D2 provides a method of comprising the step of embedding the digital combiner and the switching logic in the main board, designing a micro-Base Transceiver Subsystem(BTS) of a CDMA system,

Therefore the present application claim 1 seems to be novel(Article 33(2) PCT), and involve an inventive step and meet the requirement of Article 33(3) PCT. The claims 2-3 of the present invention also comply with Article 33(2) and (3) PCT as they are dependent claims.

The industrial applicability of the Claims 1-3 is self-evident in the sense of Article 33(4) PCT.